REMARKS

In paragraph 2, on page 2 of the Office Action, the Examiner objects to Claims 31-33 and 36-40 as being improper multiply dependent claims.

In view of the amendments to the Claims, Applicant respectfully submits that the Examiner's objection has been rendered moot.

In paragraph 4, on page 2 of the Office Action, the Examiner rejects Claims 28-40 under 35 U.S.C. § 112, second paragraph.

In view of the amendments to the Claims, Applicant respectfully submits that the Examiner's rejection has been rendered moot.

In paragraph 6, on page 4 of the Office Action, the Examiner rejects Claims 28-30 and 32-39 under 35 U.S.C. § 102(b) as being anticipated by Naughton et al.

For the following reasons, Applicant respectfully traverses the Examiner's rejection.

Naughton et al teaches a three-dimensional culture system based on a synthetic carrier structure or matrix for prolonged proliferation of desired tissue cells growing within multiple layers of the matrix. The cells of the desired tissue ("tissue-specific cells") are inoculated and cultured on a pre-established 3D stromal matrix. This stromal matrix comprises endogenous fibroblasts which enable the growth of tissue-specific cells in multiple layers on/in said synthetic carrier structure (see the Detailed Description in Naughton et al).

The problem to be solved in Naughton et al is said to be prolonged or maximized proliferation of tissue-specific cells.

The solution is the generation of multiple layers of a fibroblast matrix on said synthetic carrier structure, which enables the growth of "tissue-specific cells". Addition of growth factors may assist the growth in the cell system of Naughton et al, but this was already known. In Naughton et al, EPO is only mentioned merely accidentally, in a listing of potential tissue growth factors, without being exemplified and without giving any teaching that EPO may promote tissue growth. EPO is probably only mentioned for the sake of completeness and in order to include the corresponding cell system which can be used for the generation of blood cells.

However, the present invention is based on the unexpected finding that EPO, which was known to promote the growth of hematopoietic cells, especially red blood cells, can also trigger the growth of "adult tissue-specific" cells, and can be therefore directly used for tissue regeneration, for example, during wound healing processes. Applicant found that EPO is able to promote structurally guided 3D growth of said tissue cells.

Accordingly, Applicant respectfully submits that the present invention is not taught or suggested in Naughton et al, and thus requests withdrawal of the Examiner's rejection.

In paragraph 8, on page 6 of the Office Action, the Examiner rejects Claims 28-40 under 35 U.S.C. § 103 as being unpatentable over Naughton et al in view of Chen et al.

Specifically, the Examiner states that although Naughton et al does teach all of the growth factors recited in the present claims, such growth factors were well-known and used in the art to generate cells into tissues as evidenced by

Chen et al, which teaches culturing endothelial cells in the presence of VEGF.

For the following reasons, Applicant respectfully traverses the Examiner's rejection.

As discussed above, Naughton et al does not teach or suggest the present invention, in particular the use of "adult tissue-specific" cells, and Chen et al does not provide the deficiencies which exist therein.

Accordingly, Applicant respectfully submits that the present invention is not taught or suggested in Naughton et al alone or in view of Chen et al, and thus requests withdrawal of the Examiner's rejection.

In view of the amendments to the claim and the arguments et forth above, reexamination, reconsideration and allowance are respectfully requested.

The Examiner is invited to contact the undersigned at his Washington telephone number on any questions which might arise.

Respectfully submitted,

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